

This listing of claims will replace all prior versions,
and listings, of claims in the application:

1 Claim 1 (original): A camera capable of white balance
2 correction comprising:
3 an image pickup optical system;
4 an image sensor for receiving light from an object
5 through this image pickup optical system;
6 a three-primary-color detection section for
7 detecting three-primary-color signals based on the output
8 of the image sensor;
9 a matrix processing section for calculating two
10 color difference signals from the three-primary-color
11 signals;
12 a visible light brightness detection section for
13 detecting visible light brightness by the output from
14 said three-primary-color detection section or by a
15 photometric section having as an automatic camera;
16 an infrared light detection section for detecting
17 luminosity of infrared light; and
18 an artificial light detection section for
19 calculating the ratio of artificial light and natural
20 light from the output of said visible light brightness
21 detection section and the output of said infrared light
22 detection section,
23 wherein a correction range for performing the white
24 balance correction is obtained based on the ratio of
25 artificial light and natural light calculated by said
26 artificial light detection section, and the white balance
27 correction is performed when the two color difference
28 signals are within said correction range.

1 Claim 2 (currently amended): A camera capable of white
2 balance correction according to claim 1, further
3 comprising:
4 a determining section for determining the kind of
5 artificial light source from said two color difference
6 signals; and
7 a correspondence section for calculating a
8 correction limit value to make correspondence based on
9 the determination result of the ~~king~~ kind of artificial
10 light source,
11 wherein the quantity of white balance correction of
12 said two color difference signals is limited by said
13 correction limit value.

1 Claim 3 (original): A camera capable of white balance
2 correction according to claim 1,
3 wherein said infrared light detection section can
4 also be used as a remote control light detection section
5 for detecting a light emitted from a remote controller
6 for remote-controlling the camera.

1 Claim 4 (original): A camera capable of white balance
2 correction comprising:
3 an image pickup optical system;
4 an image sensor for receiving an object light
5 through the image pickup optical system;
6 an RGB detection section for detecting R, G, and B
7 signals corresponding to three primary colors from said
8 image sensor;
9 a matrix processing section for calculating a
10 brightness signal (Y) and color difference signals (R-Y,
11 B-Y) from the R, G, and B signals;

12 a visible light brightness detection section for
13 detecting visible light brightness by the output of said
14 RGB detection section or by a photometric section
15 comprised in a separate element;
16 an infrared light detection section for detecting
17 infrared light; and
18 an artificial light detection section for
19 calculating the ratio of artificial light and natural
20 light from the output of said visible light brightness
21 detection section and the output of said infrared light
22 detection section,
23 wherein a correction range for performing the white
24 balance correction is obtained based on the ratio of
25 artificial light and natural light, and the white balance
26 correction is performed when the color difference signals
27 (R-Y, B-Y) are in said correction range.

1 Claim 5 (original): A camera capable of white balance
2 correction according to claim 4,
3 wherein an RGB correction corresponding to the
4 fluorescent lamp light is performed when the light source
5 is determined to be a fluorescent lamp based on a visible
6 light photometric value and infrared photometric value.

Claims 6-8 (canceled)

1 Claim 9 (original): A camera capable of white balance
2 correction according to claim 4,
3 wherein said detection of infrared light serves also
4 as detection mechanism for a remote controller.

1 Claim 10 (original): A camera capable of white balance
2 correction comprising:
3 an image pickup optical system;
4 an image sensor for receiving an object light
5 through the image pickup optical system;
6 a three-primary-color detection section for
7 detecting three-primary-color signals based on the output
8 of the image sensor;
9 a matrix processing section for calculating two
10 color difference signals from the three-primary-color
11 signals;
12 a visible light brightness detection section
13 for detecting visible light brightness by the output from
14 said three-primary-color detection section or
15 by a photometric section having as an automatic camera;
16 an infrared light detection section for detecting
17 the lightness of infrared light; and
18 an artificial light detection section for
19 calculating the ratio of artificial light and natural
20 light from the output of said visible light brightness
21 detection section and the output of said infrared light
22 detection section,
23 wherein a correction range for performing the white
24 balance correction is obtained based on the ratio of
25 artificial light and natural light calculated by said
26 artificial light detection section, and the white balance
27 correction is performed based on the white balance
28 correction quantity.